

111TH CONGRESS
2D SESSION

H. R. 5070

To assess the potential of smart electronics to reduce home and office electricity demand, to incorporate smart electronics into the Energy Star Program, and for other purposes.

IN THE HOUSE OF REPRESENTATIVES

APRIL 20, 2010

Mr. HONDA introduced the following bill; which was referred to the Committee on Energy and Commerce

A BILL

To assess the potential of smart electronics to reduce home and office electricity demand, to incorporate smart electronics into the Energy Star Program, and for other purposes.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

3 **SECTION 1. SHORT TITLE.**

4 This Act may be cited as the “Smart Electronics
5 Act”.

6 **SEC. 2. FINDINGS.**

7 Congress finds the following:

1 (1) The International Energy Agency estimates
2 new electronic gadgets will triple their energy con-
3 sumption by 2030 to 1,700 terawatt hours, the
4 equivalent of today's home electricity consumption of
5 the United States and Japan combined.

6 (2) Electronic gadgets already account for
7 about 15 percent of household electric consumption,
8 a share that is rising rapidly as the number of these
9 gadgets multiplies. Last year, the world spent
10 \$80,000,000,000 on electricity to power all these
11 household electronics, and that is projected to rise to
12 \$200,000,000,000 a year by 2030.

13 (3) Most of the increase in consumer electronics
14 will be in developing countries, where economic
15 growth is fastest and ownership rates of gadgets is
16 the lowest.

17 (4) This proliferation in the use of devices will
18 jeopardize efforts to increase the energy security of
19 the United States and reduce the emission of green-
20 house gases blamed for global warming.

21 (5) The cost to business is even higher. Power
22 consumed by the typical corporate data center is
23 growing by 20 percent per year. Existing tech-
24 nologies could slash gadgets' energy consumption by
25 more than 30 percent at no cost or by more than

1 50 percent at a small cost, meaning that total green-
2 house gas emissions from households’ electronic
3 gadgets could be held stable at around 500,000,000
4 tons of carbon dioxide per year.

5 (6) Many governmental policies and programs,
6 such as the Energy Star program, in the United
7 States are already missing the opportunity to deliver
8 20 percent to 50 percent more savings, due to poor
9 attention to implementation. Most such programs
10 are voluntary, and need to be improved with both
11 clear mandates and incentives.

12 **SEC. 3. DEFINITIONS.**

13 For purposes of this Act:

14 (1) ADMINISTRATOR.—The term “Adminis-
15 trator” means the Administrator of the Environ-
16 mental Protection Agency.

17 (2) SECRETARY.—The term “Secretary” means
18 the Secretary of Energy.

19 (3) SMART ELECTRONICS.—The term “smart
20 electronics” means consumer electronics with at
21 least one or more of the following characteristics:

22 (A) Power-factor correction.

23 (B) Stand-by power.

1 (C) Communication with smart grid and
2 in-home and networked energy monitoring
3 equipment.

4 (D) On-demand and variable processing
5 speed semiconductors.

6 (E) Off-peak operation and charging.

7 (F) Low power switchable modes.

8 (G) The ability to achieve greater effi-
9 ciency with multiple functions on semiconduc-
10 tors.

11 **SEC. 4. ASSESSMENT AND ANALYSIS.**

12 Within 1 year after the date of enactment of this Act,
13 the Secretary and the Administrator shall submit a report
14 to Congress that—

15 (1) assesses the potential for cost-effective inte-
16 gration of smart electronics technologies and capa-
17 bilities in all products that are reviewed by the De-
18 partment of Energy and the Environmental Protec-
19 tion Agency, respectively, for potential designation
20 as Energy Star products;

21 (2) assesses the growth of consumer electronics
22 utilization and the associated energy consumption;

23 (3) analyzes the potential energy savings and
24 electricity cost savings that could accrue through

1 specific Energy Star program focus on smart elec-
2 tronics; and

3 (4) analyzes and ranks the potential of cost-ef-
4 fective smart electronics technologies.

5 **SEC. 5. INCORPORATION OF SMART ELECTRONICS IN EN-**
6 **ERGY STAR PROGRAM.**

7 To the extent that it is consistent with the findings
8 of the report under section 4, the Secretary and the Ad-
9 ministrator shall develop a smart electronics emphasis as
10 part of the implementation of the Energy Star program.

11 **SEC. 6. SMART ELECTRONICS REGISTRY.**

12 To the extent that it is consistent with the findings
13 of the report under section 4, the Secretary and the Ad-
14 ministrator shall establish a Smart Electronics Registry
15 that provides a voluntary mechanism for electronics manu-
16 facturers and sellers to register their smart electronics
17 products. In operating the registry, the Secretary and the
18 Administrator shall—

19 (1) work with manufacturers to develop testing
20 and verification protocols to ensure that products
21 qualify as smart electronics; and

22 (2) work with sellers to develop qualification
23 criteria for smart electronics sales location labeling.

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